

Prof W. H. Brewer

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THE CONNECTICUT SCHOOL JOURNAL.

NEW SERIES.

NEW HAVEN, CONN., NOVEMBER, 1873.

VOL. III., No. 11

THE DIFFICULTIES OF ENGLISH ORTHOGRAPHY.—No. I.

BY DR. EDWIN LEIGH, NEW YORK CITY.

The difficulties and irregularities of our orthography have often been exposed and ridiculed, especially by foreigners, who encounter them in learning English at an age when they notice and appreciate them. The following rhyme-without-reason, has been used to illustrate this unreason of our language :

*Though the tough cough and hic-cough ploughed me through,
O'er life's dark lough I've fought my way to you.*

This has served to amuse for a moment, and then has generally been forgotten, leading to no practical improvement.

But there are other combinations far more troublesome and mischievous than *ough*, such as *ea*, *ai*, *ia*, *oa*, *ua*, *au*. Take *ea* for example. The score or two of words in *ough* may be learned after awhile, though with difficulty, and only a few of them are of frequent occurrence. But *ea* is used in a very large number of words which are so frequently occurring on every page, even in children's books, that they keep the learner constantly stumbling over them. For there are no rules whatever to guide him through the difficulties of these varied uses of *ea*; absolutely every new word must be learned by itself, like a Chinese character. This worse than unreason in our orthography has been shown up in the following nonsense-rhymes :

*Weak headed beaux and heartless beauties swear,
Guineas and pearls create ideas rare.*

And still worse (or better) by the more nonsensical—

*Guinea-creating beaux break pearl-wearing beauties hearts ;
Leander fears to speak, while Dorothea, jealous, starts.*

With the aid of the *silent e*, so much vaunted and all-powerful to distinguish the long from the short vowels, these *thirteen* variations may be increased to twenty, by the addition of such words as *breathed*, *unearthed*, *create*, *beaued*, *feared*, *heaven*, *beared*.

But all this does not show the half of this evil—not the merest fraction of it. It would seem that no one, not even Mr. Ellis, who has written spe-

cially on this subject, has attempted to expose it in all its length and breadth, if, indeed, any one can do this.

There is, perhaps, no better or fairer way to illustrate this very great irregularity and confusion of our orthography than to take one letter of the alphabet—the first letter, *a*, for example—and show by a list of words in how great a variety of ways it is used.

It ought to stand for *one* sound only ; but, instead of that, it is used at different times for *nine* of our fifteen simple vowel sounds. The following nine common words are given to illustrate this, and by their side various other words, similarly spelled, are given as a little exercise for those who would find practical rules to guide the learner through these mazes.

A is used in **9** ways.

a	in	Mary.	Compare	paring, parish, chary.
a	"	any.	"	zany, animal, ant.
a	"	caring.	"	parity, faro, aright.
a	"	cat.	"	what, cater, data.
a	"	car.	"	war, warrant, carry.
a	"	fast.	"	wast, wasting, dastard.
a	"	forward.	"	hard, ward, wary.
a	"	all.	"	pallid, wallow, callow.
a	"	was.	"	alas, as, chasing.

But *a* is not always used alone. It is true that it ought to be so used. It should not be mixed up with other letters to help or hinder them. It should be confined to its appropriate use, and so should each of them. But it is, in fact, used also in about *forty-seven* different combinations, most of which are themselves, in turn, quite variously employed.

One of the most important of these is its combination with the letter *e* and a consonant, or consonants, between them, especially when it is the so-called *final e silent*. This has been regarded as having an important effect in determining the sound of the *a* (or of any other vowel preceding the consonant), and has been made the basis of a most famous rule for determining whether a vowel is long or short. How worthless this rule is, appears from such words as *save*, *have*, *cave*, *are*, *tone*, *done*, *gone*, *prove*, *give*, *hive*, *police*, and hosts of others. As this is one of the first laws given to help the learner, and quoted by those who would show the

regularity of English orthography, this combination deserves separate and special consideration. Against the six words given below a few more are printed for comparison, half of which, however, might fairly be regarded as additional variations.

A-E is used in 6 ways.

a-e	in hate.	Compare whatever, water, cater.
a-e	" cure.	" caret, Clarence, rarer.
a-e	" have.	" behave, avenue, raven.
a-e	" are.	" arena, rarely, harem.
a-e	" [landscape.]	" chapel, shapen, paper.
a-e	" Legare.	" mare, mareschal, parent.

The remaining forty-six combinations and their variations are given below. They are all either found in Webster's or Worcester's Dictionaries, or are quoted by the distinguished English phonetician, Alexander J. Ellis (who is declared by Max Muller to be by far the most accurate observer in this field), as pronounced in England, in which case they are enclosed in brackets. Many of them are in common words and very troublesome to the learner. But this evil is so great that it should be looked square in the face, and its full extent exposed; therefore all these variations are given, even those found in rare words, or in proper names. All, however, who wish, may regard only the more common words; — these are altogether too numerous.

AA is used in 8 ways.

aa	in Aaronic
aa	" Aaron
aa	" Isaac
aa	" baa
aa	" Laaland
aa	" Naaman
aa	" Naasson
aa	" ma'au

AE in 6.

ae	in aegis
ae	" aerie
ae	" Michael
ae	" aerial
ae	" Israel
ae	" aerate

AI in 7.

ai	in captain
ai	" pain
ai	" said
ai	" hair
ai	" plaid
ai	" Britain
ai	" dais

AI-E in 2.

ai-e	in chained
ai-e	" paired

AIG in 1.

aig	in campaign
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AIGH in 1.

aigh	in straight
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AIU in 2.

aiu	in Caius
aiu	" Caius

AIT in 1.

ait	in [trait]
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AO in 6.

ao	in gaol
ao	" extraordinary
ao	" aorta
ao	" chaos
ao	" aorist
ao	" Aonian

AOH in 1.

aoh	in Pharaoh
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AOUT in 1.

aout	in caoutchouc
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AU in 7.

au	in gauging
au	" aunt
au	" haul
au	" [laurel]
au	" hauteur
au	" Menelaus
au	" [meerschau]

A-UE in 5.

a-ue	in plague
a-ue	" ague
a-ue	" barque
a-ue	" basque
a-ue	" harangue

AU-E in 2.

au-e	in gauged
au-e	" Maude

AUL in 2.

aul	in [Jervaulx]
aul	" haulm

AUT in 3.

aut	in hautboy
aut	" tant
aut	" author

AUGH in 2.

augh	in haughty
augh	" laugh

AUGHA in 1.

augha	in Vaughan
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AW in 3.

aw	in law
aw	" awry
aw	" awake

AWE in 2.

awe	in awe
awe	" weary

AY in 4.

ay	in [Rothsay]
ay	" say
ay	" says
ay	" ay

AYE in 4.

aye	in prayed
aye	" prayer
aye	" aye
aye	" gayest

AYO in 3.

ayo	in Mayor
ayo	" crayon
ayo	" Mayo

AG-E in 2.

ag-e	in champagne
ag-e	" Agnes

ALF in 3.

alf	in halfpenny
alf	" halfpenny
alf	" halfpenny

AH in 4.

ah	in dahlia
ah	" ah
ah	" ahead
ah	" aha

AL in 6.

al	in salmon
al	" palace
al	" psalm
al	" talk
al	" salt
al	" paling

AR in 1.

ar	in [Carshalton]
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EA in 11.

ea	in heal
ea	" hear
ea	" guinea
ea	" great
ea	" head
ea	" wear
ea	" heart
ea	" heard
ea	" created
ea	" react
ea	" idea

EAE in 1.

eae	in [flead]
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EAU in 3.

eau	in beau
eau	" beauty
eau	" Beauchamp

EAUE in 1.

eaue	in beamed
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EA-E in 6.

ea-e	in increase
ea-e	" feared
ea-e	" beared
ea-e	" unearthed
ea-e	" create
ea-e	" heaven

EA-UE in 2.

ea-ue	in league
ea-ue	" leaguer

IA in 8.

ia	in parliament
ia	" special
ia	" mental
ia	" mediator
ia	" maniac
ia	" hiatus
ia	" trial
ia	" mania

IA-E in 4.

ia-e	in marriage
ia-e	" mediate
ia-e	" striate
ia-e	" biased

OA in 8.

oa	in [groats]
oa	" cupboard
oa	" broad
oa	" coal
oa	" oasis
oa	" coagulate
oa	" coarct
oa	" boa

OA-E in 2.

oa-e	in coaled
oa-e	" coalesce

OAT in 3.

oat	in boatswain
oat	" boat
oat	" oath

OUGH in 2.

ougha	in Brougham
ougha	" [Hougham]

UA in 13.

ua	in guard
ua	" piquant
ua	" mantuamaker
ua	" Mantua
ua	" quaking
ua	" squaring
ua	" quack
ua	" guano
ua	" squall
ua	" squabble
ua	" victuals
ua	" actuating
ua	" actual

UA-E in 7.

ua-e	in quake
ua-e	" square
ua-e	" quacked
ua-e	" squalled
ua-e	" quashed
ua-e	" victuals
ua-e	" actuate

UAY in 2.

uay	in quay
uay	" Paraguay

UAYE in 1.

uaye	in quayed
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WA-E in 2.
wa-e in gunwale
wa-e " wale

WAI in 2.
wai in boatswain
wai " wain

Such are the multiplied and various uses of the letter *a* and its forty-seven combinations—in all, 183 different uses. If any one say that many of these are uncommon, some of them peculiar English uses, some of them in proper names, others in rare words, let him notice that 100 of them at least are in common words, very many of them constantly occurring even in children's books.

But let us take the Lord's Prayer. The words of this ought to be common enough. Let us see the

VARIOUS USES OF SOME OF THE LETTERS AND THEIR COMBINATIONS IN THE LORD'S PRAYER.

A in 9 ways.
a " temptation
a " as
a " Father
a-e " name
ai " daily
ay " day
ea " lead
ea " bread
ea " earth

E " 13.
e " be
e " forever
e " Father
en " heaven
en " amen
a-e " name
i-e " give
i-e " thine
o-e " come
ea " lead
ea " bread
ea " earth
owe " hallowed

I " 6.
i " is
i " evil
i-e " give
i-e " thine
ai " daily
ti " temptation

O " 10.
o " debtors
o " kingdom
o " for
o " not
o " glory
o " into
o-e " come
ou " our
ow " power
owe " hallowed

W " 4.
w " we
wh " which
ow " power
owe " hallowed

Y " 3.
y " daily
y " thy
ay " day

U in 2 ways.
u " us
ou " our
B " 2.
b " be
bt " debts
C " 2.
c " come
ch " which

G " 2.
g " give
ng " kingdom

H " 5.
h " heaven
th " thy
th " earth
ch " which
wh " which

L " 4.
l " lead
ll " will
ll " hallowed
il " evil

M " 2.
m " from
mp " temptation

N " 3.
n " in
en " heaven
ng " kingdom

P " 2.
p " power
mp " temptation

R " 2.
r " glory
r " our

S " 2.
s " as
s " us

T " 5.
t " it
th " thy
th " earth
ti " temptation
bt " debts

the one letter *o* standing by itself. Observe that in the combination *ai* in *daily*, we have not only a peculiar use of *a*, different from the other eight uses of *a*, but a peculiar use of *i* different from the other five uses of *i*. Observe also that in the words *name*, *give*, *thine* and *come*, there are four different uses of the silent *e* final.

All these variations give vast trouble to the beginner, and it is only after he has fairly learned to read, and has become familiar with the various classes of uses of the letters, that he can begin to *guess* from analogy, and then he often guesses wrong. If any one say that the Lord's Prayer, though consisting of common words, is not meant for beginners in learning to read, let us take a FIRST Book prepared for the Chinese to learn English. Passing by the fact that on the page arranged for teaching all the English sounds, there are 9 uses of *a*, 8 of *e*, 7 of *i*, 10 of *o*, 4 of *u*, 4 of *w*, 5 of *y*, etc., let us take Lesson I. Here, in the few simple words, "the cat ate a rat," we have 3 uses of *a*, 2 of *e*, and 3 of *t*, viz.:

A	E	T
a in a	e in the	t in cat
a " cat	e " ate	th " the
a-e " ate		te " ate

Thus, at the very first step, the poor stranger plunges into a thicket which becomes more dense and difficult with every succeeding step, till he quickly finds himself entangled, with no guide or help, and is compelled to learn, word by word, just as he did his own celestial hieroglyphics.

Finally, take any CHILD'S PRIMER prepared for our own schools. In most of them are found in the very first lessons, and side by side, such words as "do go on or go up." Here are, to begin with, four different uses of the letter *o*, and these, in the very next sentences, are multiplied, varied, mixed up with other letters, and confused, till the child is bewildered in the mazes, and is driven, like the Chinaman, to learn each word by itself from the lips of his teacher.

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Here in these few short sentences we have seventy-eight uses of eighteen of our letters—six uses of

regularity of English orthography, this combination deserves separate and special consideration. Against the six words given below a few more are printed for comparison, half of which, however, might fairly be regarded as additional variations.

A-E is used in 6 ways.

a-e	in hate. Compare whatever, water, cater.
a-e	" care. " caret, Clarence, rarer.
a-e	" have. " behave, avenue, raven.
a-e	" are. " arena, rarely, harem.
a-e	" [landscape.] " chapel, shapen, paper.
a-e	" Legare. " mare, mareschal, parent.

The remaining forty-six combinations and their variations are given below. They are all either found in Webster's or Worcester's Dictionaries, or are quoted by the distinguished English phonetician, Alexander J. Ellis (who is declared by Max Muller to be by far the most accurate observer in this field), as pronounced in England, in which case they are enclosed in brackets. Many of them are in common words and very troublesome to the learner. But this evil is so great that it should be looked square in the face, and its full extent exposed; therefore all these variations are given, even those found in rare words, or in proper names. All, however, who wish, may regard only the more common words; — these are altogether too numerous.

AA is used in 8 ways.

aa	in Aaronic
aa	" Aaron
aa	" Isaac
aa	" baa
aa	" Laaland
aa	" Naaman
aa	" Naasson
a'a	" ma'am

AE in 6.

ae	in aegis
ae	" aerie
ae	" Michael
ae	" aerial
ae	" Israel
ae	" aerate

AI in 7.

ai	in captain
ai	" pain
ai	" said
ai	" hair
ai	" plaid
ai	" Britain
ai	" dais

AI-E in 2.

ai-e	in chained
ai-e	" paired

AIG in 1.

aig	in campaign
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AIGH in 1.

aigh	in straight
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AIU in 2.

aiu	in Caius
aiu	" Caius

AIT in 1.

ait	in [trait]
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AO in 6.

ao	in gaol
ao	" extraordinary
ao	" aorta
ao	" chaos
ao	" aorist
ao	" Aonian

AOH in 1.

aoh	in Pharaoh
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AOUT in 1.

aout	in caoutchouc
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AU in 7.

au	in gauging
au	" aunt
au	" haul
au	" [laurel]
au	" hauteur
au	" Menelaus
au	" [meerschau]

A-UE in 5.

a-ue	in plague
a-ue	" ague
a-ue	" barque
a-ue	" basque
a-ue	" harangue

AU-E in 2.

au-e	in gauged
au-e	" Maude

AUL in 2.

aul	in [Jervaulx]
aul	" haulm

AUT in 3.

aut	in hautboy
aut	" taut
aut	" author

AUGH in 2.

augh	in haughty
augh	" laugh

AUGHA in 1.

augh	in Vaughan
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AW in 3.

aw	in law
aw	" avary
aw	" awake

AWE in 2.

awe	in awe
awe	" aweary

AY in 4.

ay	in [Rothsay]
ay	" say
ay	" says
ay	" ay

AYE in 4.

aye	in prayed
aye	" prayer
aye	" aye
aye	" gayest

AYO in 3.

ayo	in Mayor
ayo	" crayon
ayo	" Mayo

AG-E in 2.

ag-e	in champagne
ag-e	" Agnes

ALF in 3.

alf	in halfpenny
alf	" halfpenny
alf	" halfpenny

AH in 4.

ah	in dahlia
ah	" ah
ah	" ahead
ah	" aha

AL in 6.

al	in salmon
al	" palace
al	" psalm
al	" talk
al	" salt
al	" paling

AR in 1.

ar	in [Carshalton]
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EA in 11.

ea	in heal
ea	" hear
ea	" guinea
ea	" great
ea	" head
ea	" wear
ea	" heart
ea	" heard
ea	" created
ea	" react
ea	" idea

EAE in 1.

eae	in [flead]
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EAU in 3.

eau	in beau
eau	" beauty
eau	" Beauchamp

EAUE in 1.

eaue	in beamed
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EA-E in 6.

ea-e	in increase
ea-e	" feared
ea-e	" beared
ea-e	" unearthed
ea-e	" create
ea-e	" heaven

EA-UE in 2.

ea-ue	in league
ea-ue	" leaguer

IA in 8.

ia	in parliament
ia	" special
ia	" mental
ia	" mediator
ia	" maniac
ia	" hiatus
ia	" trial
ia	" mania

IA-E in 4.

ia-e	in marriage
ia-e	" mediate
ia-e	" striate
ia-e	" biassed

OA in 8.

oa	in [groats]
oa	" cupboard
oa	" broad
oa	" coal
oa	" oasis
oa	" coagulate
oa	" coarct
oa	" boa

OA-E in 2.

oa-e	in coaled
oa-e	" coalesco

OAT in 3.

oat	in boatswain
oat	" boat
oat	" oath

OUGH in 2.

ough	in Brougham
ough	" [Hougham]

UA in 13.

ua	in guard
ua	" piquant
ua	" mantuamaker
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ua	" quaking
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ua	" quack
ua	" guano
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ua	" actuating
ua	" actual

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uay	in quay
uay	" Paraguay

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wa-e in gunwale
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o " debtors
o " kingdom
o " for
o " not
o " glory
o " into
o-e " come
ou " our
ow " power
owe " hallowed

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wh " which
ow " power
owe " hallowed

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y " thy
ay " day

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u " us
ou " our

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b " be
bt " debts

C " 2.
c " come
ch " which

G " 2.
g " give
ng " kingdom

H " 5.
h " heaven
th " thy
th " earth
ch " which
wh " which

L " 4.
l " lead
ll " will
ll " hallowed
il " evil

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mp " temptation

N " 3.
n " in
en " heaven
ng " kingdom

P " 2.
p " power
mp " temptation

R " 2.
r " glory
r " our

S " 2.
s " as
s " us

T " 5.
t " it
th " thy
th " earth
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bt " debts

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1850. There are other causes helping to bring about these alarming results, but this confusion of our orthography is one cause—a fundamental cause, a *sine qua non*. It is time to attack such an evil as this and remove it.

FOGYISM.

BY RANDALL SPAULDING.

A gentleman remarked to me a few days since, "With all respect to your profession, there are more old fogies in it than in any other." Whether this be true or not it is not worth while to discuss, since it is true that there are in it far too many.

Fogyism, it is said, consists in a liking for the old because it is old; an unreasonable prejudice in favor of old methods, beliefs, and forms of expression. It differs from reverence for age, by adding to it a spite against what is new. Your old fogy—and there are old fogies quite young in years; sad specimens for the philosopher to contemplate—is a tolerably happy man. Why should he not be, if human wisdom has in the past reached its maximum and been handed down in that "one small head"?

He passes along his well-trodden way with a deal of self-satisfaction. He is confident that he ought to succeed, for all his means have been tried a hundred times before. He advances with the quiet boldness of "pius Æneas," when he has girded to his side his trusty sword. And if he finds his accomplished work small by contrast, and that others are outstripping him, he quietly pronounces their work a sham and their methods sensational, and still declares that he ought to succeed, for "has not success been thus won?"

But this very self-possession and air of sufficiency tend to disarm the suspicious, to silence the grumblers, and impress the public with the notions that everything is going well. From the general desire to let well enough alone, our "old fogy" has little to fear; nor has he much to fear, in many cases, from our system of school inspection. He goes right on, year in and year out, in his hard and time-beaten track, runs his classes through the same routine, repeats his stories and jokes with the same emphasis and the same knowing look, prepares for and holds the regular examination, and, perhaps, gets up the regular exhibition in the regular way, so as not to shock the sensibilities of the most fastidious. Now is it not too bad that the young with all their susceptibilities, their easy-kindled enthusi-

asm, and abundant life, should be put under the influence of such men?

Now fogysm is generally not something born in a man, but is something that comes upon him by consent of his own will. Let us turn from the manifestation to the cause of this trouble.

Fogyism, in my opinion, is the *cessation of youth*. This is its universal cause. How many teachers do we find who have ceased to grow; and for such the school-room is the unfittest place on earth. Mark the contrast between the mind and physical life, as of a tree, or of the human body. The former is capable of never-ending progress and development, while the latter attains its growth, as we say, in a few years. A tree when it has ceased to grow is still good for something; it lives on, and still has a mission to fulfill; and reasonably, for it has risen to the stature designed for it by its maker. The human body attains perfection at the point when it ceases to grow. Quite otherwise is it with the mind. It never, in this life, realizes its possibilities, and should, therefore, never cease growing. Such evidently was not its maker's design. If a tree that should mature at thirty years of age, cease growing at ten, it is because it is dying. So is a teacher's mind that for years past has digested no new supplies, has been expanded by no wider views, and has received no fresh inspiration. The mind cannot be at a stand-still. If it gains not, it loses. Only by the exercise of increasing its stock can it hope to retain what it had previously in store. Capacity implies duty. As long as the mind can grow, then, it is our duty to feed it.

No one can so chill the ardor of the young as your genuine fogy. No one else has such marvelous fortune in turning out very common-place people, and listless, shirky members of society. Is it not too bad—I say, too bad? And it is all the teacher's own fault. Let him work; let him improve his time during the hours when he is relieved from the responsibilities of the school-room; let him open his mind to truth, whether old or new; let him tear prejudice from her throne, and, in short, let him—live. And to you who are interested for your children, I say this: If you have a teacher who spends a great part of his leisure time at backgammon, or chess, who is seen often in shop doors or in places of resort, filling the loafer's chair, who does not take the paper, but pores over the last novel, or who fritters away his time in making useless calls in a suit of store-clothes, send him off, for he will soon be running in the ruts, he is already in the incipient stage of fogysm. I say,

send him off at once, and procure some one who is alive and in earnest, even if you are obliged to pay a good price for his services. You will be amply repaid in the long run.

This earnestness and growth is what every community ought to demand of its teacher. We demand of the clergyman that he keep pace with the time in literature, and to some extent in science; that he be a man of general culture, and that he be especially familiar with the latest phases and development of theological truth. In seeking to influence the will of his hearers, he may call into use his widest and most varied knowledge. But great knowledge and mental discipline may be practically applied with even more directness in the school-room. The earnest teacher knows how to make everything that he knows bend to his service. Nowhere has there been more rapid advance in the last twenty years than in our best class of schools; while nowhere is there greater need of advance than in our poorer class of schools run by second-rate teachers.

So, too, we expect the lawyer, not merely to ground himself in the principles of law at the outset, but to study his case, look up his precedents, and search the statutes, both old and new. Unless he do this, he cannot find business. So, too, we demand of the physician that he be a constant learner, not merely from his practice, but from medical literature. He must profit by the experience of others, and be familiar with every new discovery and process in medical science.

Now why make an exception of the teacher? Why not be equally stringent in our demands upon him? Why suffer him, like a dead, mechanical thing, to run on ever upon the same track, never enlarging the proportions of his mind, or turning aside from his unvarying course? If your teacher does not feel his responsibility, make him feel it. If he be good for anything he will thank you for it. But if your teacher will be dead, then bury him. I speak thus earnestly for I feel the worth of each young life given to our care.

"But what is your prescription?" some one will ask. It is the same for both prevention and cure. It is, in a most general term, *industry*. It is true that industry may be misdirected, yet it is scarcely possible for an earnest, working man to become an old foggy. Said one of my neighbors to another, "If you will tell me, Mr. A., how it is that you catch so many fish, I will give you a bushel of rye." Now Mr. A. caught more fishes than any of his neighbors. "Well," said Mr. A., "I'll do it." The

rye was measured out and handed over to the lucky fisherman, who then replied: "Why, this is the way to do it: fish every day. On some days you will catch fish, and on some you won't. But fish all the time, and you can catch just as many fish as I can."

So to teachers who are tempted to run on in a line of dead routine I say: Work with your minds, whether your school duties require it or not. Fish all the time. Then whenever you have anything special to do, any change to make, or new method to introduce, or whenever you have any new or peculiar work to take up that will lay upon you heavier responsibility and tax your powers of mind, you will not, indeed, like this fisherman, depend on chance for a good average result, but you will depend upon your own resources that your industry has brought you. You will be a live man, and depend upon it, you will have a live school. Let us have greater intellectual and moral earnestness in this work.

YOUNG TEACHERS' DEPARTMENT.

EVENINGS WITH THE STARS.—No. X.

BY W. B. DWIGHT, NEW BRITAIN.

Groups visible in December.—We have a capital starting-point for the extra zodiacal constellations of winter in the great square of Pegasus. At this time it appears a little above the horizon in the twilight, remaining just long enough to give the greeting of the evening and then retire. It stretches about 15° on a side, and presents a corner to the horizon. From this corner a third and then a first magnitude star, extending downward in a straight line form the neck and back of the head of the horse Pegasus. Another third magnitude at the right, forming a triangle with the last two, marks the tip of the nose. The four corner stars of the Great Square are all second magnitudes, and one of them has three conspicuous neighbors, forming with it a nearly equilateral triangle. The star at the upper (north-east) corner (Alpheratz), stands also in the head of Andromeda. A straight line through this and the corner diagonally opposite strikes through the shoulders of Aquarius. Directly south of Pegasus is the Western, and directly east, the Northern Fish of the Zodiacal constellation Pisces. The body of Andromeda extends about 30° in a north-easterly direction. It is at once discerned in the following way: A line drawn north-east from

Alpheratz (being nearly the produced diagonal of the Square of Pegasus) passes almost perpendicularly through three separate lines of stars. The first line consists of three stars close together in a line forming the breasts, and another a little out of range, and southerly, marking the elbow. The second line of three stars, close together, and nearly parallel to the first, forms the hips; the third line has but two stars, each marking one of the feet. The Square of Pegasus, combined with some of the more conspicuous stars of Andromeda, form a figure remarkably similar to the Great Dipper.

Directly east of Andromeda we may now locate the fine group of Perseus, brandishing his sword in his right hand and holding in his left the head of Medusa. This group is midway between Andromeda and Auriga. The chief stars in Auriga, already mentioned, which form one of the greatest charms of the winter evening, are Menkalina and Capella, the latter brilliant and attended by a neat triangular group which will identify it easily to one who has once made its acquaintance. It graces the north-eastern sky at this season. Midway between Capella and the left foot of Andromeda is a bright line of stars, concave towards Ursa Major. This, with a few less prominent ones to the east and south, are the body of Perseus. The concave line is called "The Segment of Perseus; its brightest member is Algenib. A little to the southwest, and towards the left foot of Andromeda, is the compact group of four larger and two lesser stars called the Head of Medusa. Midway between this and Aries, is the little triangular group Musca the Fly; and 10° to the west of this, a larger isosceles triangle, The Triangles.

We turn now to a ponderous constellation looming up over the south-western horizon, Cetus the Whale. It stretches along south of Aries and Pisces, and its immense proportions are readily made out, though the complex figures are not so readily described. One of the most characteristic of these is a pentagon forming the head. Below this is a small square of stars in the breast. The northwest corner of this square forms a triangle, with a star in the neck and a star in the body at the heart. This star in the neck is the wonderful Mira, the variable star of 1596.

The diagonal of the little square drawn through and produced 35° beyond, of course in a north-westerly direction, passes through a chain of stars marking the back-bone and the tail of the monster. One or two stars east of the pentagon forming the

back part of the head, and a few more below the vertebral line just mentioned, complete the outline of this group. The brilliant southern member of the Fishes, Fomalhaut, lies very low in the south-western horizon, and will hardly be seen after the autumn months.

TOURS OF OBSERVATION AMONG THE SCHOOLS.—No. VI.

BY A. PARISH, SUPT. OF SCHOOLS, NEW HAVEN.

"I begin to see the force of what you have been saying about requiring the pupils in a school to *think*—i. e., to get the *habit of thinking* of everything pertaining to their duties in the school, so that *thinking* about them shall lead to *doing* them. It is very clear that there are two currents of thought in most school-rooms—one directed by the teacher; the other by the pupil. Indeed, instead of *two*, it may more properly be said that there are as many as there are pupils, when the teacher fails to hold a controlling power over the school. How often we hear scholars excuse themselves for some fault by saying, 'I didn't think.' But the truth was, they were thinking of something quite foreign to the teacher's requirement; their minds were intent on some object of their own, and so they 'didn't think,' could not think as the teacher did. Now, I begin to perceive the grand object to be attained by the teacher in securing good discipline, whether to preserve order or to secure mental application in study."

"Very good; and you see the need of one controlling mind in the school, as there must be to direct the movement of a battalion of soldiers in war. Observe the simultaneous movements of those platoons on the march; what precision in the step, in the position of their guns; how exact their motion when they wheel or form in line, or go through their drill."

"You are right; the need of one controlling mind to direct the thoughts of pupils in a school is apparent as the need of a military commander to control the movements of an army. In the latter case the controlling power relates to physical action and results, chiefly; in the former, to mental operations."

"That is plain enough to understand, and it seems to me that the military commander has much the easier task of the two, because every neglect of duty is visible in the action of the soldier, and instant correction can be made; but the teacher cannot so easily detect neglected duty or trans-

gression, which depends on mental action. The movements of the body are obvious; of the mind, not so easily discerned."

"That is just the difficulty the teacher has to contend with, and the ability to detect motives and provide promptly for emergencies, will invariably insure success."

"You made a similar remark the other day, but if you could make it plainer by exercises in the school-room, it seems to me I could comprehend your meaning better."

"Come with me, and I will show you how a teacher is continually testing her pupils to know whether they are thinking of their duties or of their own pleasure; or rather, how she keeps their thoughts occupied with duties, making it their pleasure to perform them."

"We are fortunate, indeed, for they are just commencing the session, and I am glad to see how they begin. The children are all sitting in position—i. e., they are all sitting erect in their chairs, with their folded hands resting on the edges of the desk before them. Why do they look so pleased? Their countenances beam with delight, and their eyes are intently fixed upon the teacher, as if they were waiting for something from her; and now she has a word for them":

Teacher—"Well, children, can we add another star to the line of stars on the black-board?"

Children—"Yes, ma'am; we are all here, and nobody is late."

T.—"I am very glad to tell our friends, who have come to visit us, how punctual you have been in your attendance. How many stars have been made during the term?"

Ch.—"Twenty-four."

T.—"And when can we place a new star on the board?"

Ch.—"Every half-day when no scholar is either absent or late."

T.—"And so, you have had twenty-four perfect sessions during only one half of the term. I am very glad to tell our friends how careful you are to be at school every half-day, and never to be tardy. Now, perhaps they would like to know how many children have not been absent or late this term? Those who have not may stand. Thirty-three out of fifty. Now, children, we will sing a few minutes, and then attend to our recitations."

* * * * *

"You do not know how I longed to ask a hundred questions during the exercises this afternoon, but if I had interrupted the teacher with conversation

we would not have seen the natural working of the school. But now, I wish you would explain the secret by which she was able to keep such perfect control of every pupil, and at the same time awaken such an earnest interest in all the exercises."

"Well, I suppose the whole secret consisted in *thinking*. First, earnest thinking on the part of the teacher in studying the best methods of performing her duties. Although her school is of a primary grade, this teacher never allows herself to enter upon the work of a day without planning and thinking beforehand what improvements she can make both in controlling and teaching her children. Next, she is sure to give the pupils something to think of, and does not fail, for a moment, to lead their thoughts in accordance with her own, instead of allowing them to drift, by neglect, into childish follies and improprieties, which children can scarcely avoid when left to themselves."

"Yes, it was in that way she secured such close attention. The eyes of the children were constantly watching her for every word she spoke and every motion she made. And then she made everything so interesting that no one seemed to wish to do anything but follow her directions. How earnest they all were in their 'perfect attendance'? It must be that the teacher had created that ambition; for children do not often combine to secure such an object. In their singing exercise there was the same interest and earnest attention."

"Did you notice one peculiar method of the teacher, when about to give a signal for the class to stand for the reading exercise? While delaying for a moment, some of the pupils were beginning to look in different directions, and consequently were inattentive. Now she might have struck the bell, and thus called their attention; but instead, she uttered somewhat sharply, '*eyes*.' Instantly every eye was directed toward her; then as she made a single stroke of the bell, the movement of the class was perfectly simultaneous, because every one was attentive and ready to act. Had she given the signal while some were inattentive, another stroke of the bell would have been necessary, and then the effect of repetition would be to weaken its force, in calling attention, until in time it would nearly cease to produce the desired result."

"I noticed another little device of the teacher to check a little noisy movement, while the class was studying. Instead of giving a *demerit* to some uneasy child, or scolding some half-a-dozen for restlessness, she says, 'Mary Noble is the stillest, most studious scholar in the room; I give her a

credit for studying so quietly.' Instantly there was a change, and the room was still as if by magic."

"I have learned a lesson from this; encouragement is better than censure, when it can be properly used."

"Well, you have caught something of the spirit and method of this excellent teacher. But the grand principle of her school management is to control the thoughts of her pupils and lead them to choose proper objects of thought, instead of allowing them to think of trivial objects which must necessarily lead them to trifling or mischievous action."

SOME THOUGHTS ON ORTHOGRAPHY.

BY PROF. H. N. DAY, NEW HAVEN.

No class of words in our vocabulary present more anomalies in proportion to their number than those derived immediately from the Greek. When, accordingly, it is proposed to select the most puzzling words for spelling tournaments, words of this class will generally form a large part. At a convention of nearly a hundred teachers, of the fifty words given out to try their skill in spelling, two-fifths were of Greek origin. It is not so surprising that the mistakes averaged nearly thirty on the ninety-four papers returning the fifty words. A person acquainted with the Greek language, able therefore to identify the origin of a word and its primitive form in the Greek, will find little comparative difficulty. But even to him there will come along occasional anomalies, and nothing but settled usage can solve his doubt as to the authorized orthography.

The sound of *e* in *mete* thus replaces in English several sounds differently represented in Greek. To preserve the etymology, this same sound is diversely represented in English, and gives rise to much anomalousness. In *corypheus*, and in *cyclopaedia*, also in *paleology*, and in *archaeology*, this sound is represented by *e* and also by *ae*, while in the Greek it replaces the same diphthong *ai*. How is one ignorant of Greek to spell any word of this class, except as he has observed how others have spelled it? This sound also replaces the Greek *oi* in different ways. We have accordingly the anomaly of *homeopathy* and *prosopopoeia*, etc.

This same character *e* representing its sound as heard in *error*, replaces the Greek *ai*, which is also replaced by *ae*. Thus we meet with *diaeresis* and *dieresis*, *aphaeresis* and *apheresis*, *aesthetics* and *esthetics*, *hypaethral* and *hypethral*, etc.

If we trace the history of the use of these words in our language, we find that the orthography has been unstable. At first the Greek is more closely followed; we even find *archaiology*; the English analogy gradually prevails, manifesting a clear tendency to the use of the

simple *e* instead of the diphthong. To remove the anomaly the only way is to carry out this tendency and spell all words of this character with the simple *e*. If the words become thoroughly anglicized, this will, beyond doubt, be eventually the accepted orthography. *Paleology* will never return to *palaeology*, much less to *palaiology*. Those words which have not yet taken the simple *e* are on the sure road to it, and will take it if they continue in use.

The sounds represented by the Greek letters kappa and chi, are not distinguished in English; words from the Greek replace them alike by *c* or *k* according to English analogy, and by *ch*. Except from observing how each word is spelt, no one, unacquainted with Greek, can know whether to use *c* or *ch*;—whether to write *archaic* or *arcaic*; *chronic* or *cronic*.

The orthography of words from the French must be admitted to be anomalous. There are many words in frequent use which yet have not dropped their foreign guise, and are consequently out of the pale of all English rule. There are one or two hundred such words as *ballet*, *bivouac*, *boudoir*, *chateau*, *corps*, *cuisine*, *depot*, *hauteur*, *projet*, *quadrille*, *sobriquet*, for the spelling of which no mere English analogy furnishes a guide. There are other words which may be accepted as naturalized, but have introduced into the English tongue modifications or entirely new features. Thus the termination *ier*, as in *cavalier*, and the digraph *ch* representing the sound of *sh*, as in *machine*, are of French origin, but may be recognized as fully anglicized. There is another large class of words the orthography of which is seemingly quite irregular. They are those which come into our language immediately from the French but remotely from the Latin. Even although a word of this class may be recognized as of foreign origin, there arises at once the question whether it came directly from the Latin or immediately through the French, and consequently whether it should be spelled according to the analogy of Latin or of French words. We will take two groups of words belonging to this class as exemplifying how far they may be brought under rule.

The first class embraces those nouns of Latin origin coming directly into our language from the French, ending in the Latin in *or*. The French retains, as a general rule, the original Latin accentuation; but as it drops in accordance with a common principle in the wear of words, the inflectional ending, it characteristically accents the last syllable which was in the primitive Latin a stem syllable. Still further, the inflected form of the noun, not improbably that of the accusative case, was first in use. Hence in the early stage of our language, as in Chaucer, we find in common use such forms as *emperour*, *mirroure*, *successour*, *honour*, *labour*, in perfect analogy with *nacioun*, (nation) *subjeccioun*, *condicioun*, *salvacioun*, *passioun*, accented on the ultimate syllable. That the *u* was inserted into the primitive word to direct the accent there can be little question.

But in the process of time English analogy drew back the accent to the penultimate; the *u* which did not originally belong to the word, thus came to have no significance; and doubtless more or less under the conspiring influence of the old Latin form, usage gradually dropped the now useless, not to say misleading letter, and thus, so far as it extended, abolished an anomaly. But this tendency to drop the *u* in this class of words, although it has extended to all words in *ion*, has not in all quarters reached all words ending in *or*. In Great Britain, in the most recent publications, we still find *flavour, behaviour, labour, rigour*, while still many other words of this class are written in the same publication without the *u*. In this country the same irregular usage continues to some extent. Even some who omit the letter in all other words, with a strange superstitious conservatism, retain it in the single word *Saviour*. In this case thus we have this history of an apparent anomaly: first, we find a word varied from its primitive orthography by the use of a common expedient employed to denote accent and quantity—the insertion of a vowel entirely foreign to the primitive word; then we find the orthoepy changed so as to make the orthographic expedient useless if not actually misleading; finally, we find an effort to reject the now useless letter and cure the apparent anomaly, which is gradually working the restoration of all the words of the class to their regular orthographic form. It should be remarked that adjectives ending in *ous* still retain the *u* introduced for a like purpose, as *glorious, serious*. There are reasons for retaining the *u* here, however, which do not apply to nouns in *or* and *on*. Moreover, words of a like form not of Latin origin naturally come under the same rule.

We have referred above to two groups of words for exemplification of irregular forms in our orthography, brought in originally, perhaps, for good reason—in other words, under rules—but occasioning under the conflict of rules, to which they become subject, diversity of usage and anomalousness. The first group embraced nouns ending in *or* from Latin primitives through the French. A foreign element *u* was introduced into the word to mark accent, which afterwards, when the accent was retracted to the penult, was gradually dropped, and now tends to disappear entirely. The other group referred to embraces words having the prefix *en* or *in*, *em* or *im*. There is diversity of usage in respect to these words; as we have both *inquire* and *enquire*; *endue* and *indue*; *embitter* and *imbitter*; *impanel* and *empanel*.

The difficulty with this class of words is considerably enhanced by the fact, that these prefixes *en* and *em*, *im* and *in*, now replace such a diversity of primitive elements. In the first place, the Greek preposition is represented by our *en* or *em*, as in *emblem, encyclical*. Then both the Latin prefix *in*, and the negative particle *in* appear in our *im* and *in*, as *impress, induce*; *impossible, insipid*. Further, we have the French form *em* and *en*, and also the Anglo-Saxon *in* and *en*, both appearing in our

in or *en*. We meet here the noticeable fact that although the Anglo-Saxon had no prefix of the form of *en* or *em*, except possibly from *emb* by apocope, as in our *engirt* (= *emb-gyrdan*), simples of Anglo-Saxon origin generally take the French prefix *em* or *en* instead of *im* or *in*; as *enlighten* (A. S. *anlihtan*), *enhearten, enseal, enshroud*. The French form seems to have given law to such compounds. We have, however, divided usage in the case of some words, as *eusnare, enthrall, entrust*, written also with *in*. It would seem as if the general rule should prevail, and thus uniformity be attained by spelling all such words with *en*. But this rule should be applied only to words in which the force of the prefix is merely intensive. When the proper locative force of the preposition appears, as in *inlay, inlet, in* is to be written.

Generally the rule may be laid down that, French and Latin words of this class introduced before the seventeenth century, are written with *em* or *en*; while those introduced more recently take *im* or *in*. The ground of this usage is, that the English prefers the *em* or *en*, and unless the word can readily be identified as from the Latin; it adopts that form. A better statement of the rule governing the spelling of these words is: words identified with Latin forms, and those in which the prefix has its locative force, take *im* or *in*; others take *em* or *en*.

MISCELLANY.

POVERTY IN EUROPE.

The extreme poverty of the lower classes in Europe is calculated to create discontent, and the vast difference between them and the rich to suggest a readjustment of the social relations. Here we have at once the ground and the motive of socialism.

The poor are miserable beyond anything that we of America can conceive. The workingmen, owing to the lowness of their wages, live from hand to mouth, feeling themselves fortunate that they can provide for the moment; they do not dream of laying up anything for the future. If they lose a day's work they are accordingly on the verge of beggary. In this misery, moreover, they have not the consolation of poor Americans, who, although they must begin poor, never expect to remain so long. Nor have they any hope that their children ever will rise out of their condition; for the son conventionally takes up the trade of his father, lives in the same class of society, and generally in the same town, for a whole decade of generations.

With this state of things they experience several very important evils. In the first place, the people cannot generally marry. Servants, waiters, coachmen, and persons of that class, rarely, if ever, think of marrying, believing themselves fortunate if they can support a sin-

gle person. Most mechanics do not marry, and those who do, put it off till late in life, the usual age for marrying being from twenty-five to thirty years. The sad necessity which imposes this delay on many has given rise to it as a custom for all. The marriage of the workingman, when it does occur, generally entails more misery than comfort; for then not only himself, but a whole family, stands in a perpetual fear of beggary. This evil, moreover, gives rise to a greater. The unmarried, and so all, during their early manhood are much given to licentiousness. The state of 'mistress is the common condition of servant-girls, poor widows, and often shop-girls, who in this way alone can eke out a subsistence for themselves and their aged parents, or it may be orphan brothers and sisters. A poor young girl in Europe is generally allowed to be ruined until proved to be virtuous.

Again, the manner of living among the workingmen is equally deplorable. Their dwellings are the garrets, cellars, and back buildings, all of which are small, or else portioned off into small apartments, dirty and unhealthy. Many take up their abode in cabins in the open square, or along the wider streets, where they sit during the day exposing petty articles of merchandise. In Rome, Naples, and other southern cities, they often live out-of-doors altogether, lying about in the sun, and sleeping at night in the squares and parks. In Sweden, Poland, and some other northern countries, they take up lodgings with the cattle. Those who carry on their own business, as shoemakers, often do all their own work in the streets. This is especially so in the south. In Naples, for example, you can see them arranged with their tools along the pavement from one end of the street to the other. I have noticed whole squads of sewing-girls, sometimes with sewing-machines, thus stretched along the pavements; also bakers, cooks, saddlers, coopers, coppersmiths, etc., all plying their business in open air for lack of shelter of any kind.

The dress and general appearance of this class are no better than their dwellings. Much of their clothing is second-hand apparel that has been thrown off by the rich. The general characteristic of a poor man's dress in Europe is good stuff in a bad condition. Here we see persons literally in rags. In Thuringia, the children often go entirely naked; in Italy, the poor children and beggars go nearly so. The common blouse of the workingmen all over Europe is what we would call a coarse shirt. They largely wear wooden shoes, and bind their feet with rags for stockings.

The food of this class is likewise bad, and rarely ever sufficient for them, there being much suffering and weakness from this cause. Cheese takes largely the place of meat in Germany, and fat of butter. It is not uncommon in the rural provinces for a man to come home after a hard day's work to a supper of unbolted rye bread and the salt water in which herring had been pickled. Only those in better circumstances can eat

the herring. The stems and leaves of cabbages, turnips, and other vegetables are eaten by this class; also horse meat, blood, entrails, snails, and the like. In Italy they feed on coarse mush, and are disqualified for any hard work whatever. This class do not generally eat at tables, but "take a piece," as we would say, each one eating when he feels like it, or can get it. They do not always eat in the house, but may be seen at all hours eating in the streets. A chief reason for so much beer and wine drinking in Europe, is, that with something of this kind the working classes can make out to swallow their dry crusts.

—Austin Bierbower, in *Old and New* for October.

OUR POPULATION IN 1900.

Gibbon has shown that the further conquest is carried, the wider and the weightier become the resistance and the hostility which the conquering power is forced to encounter. So it is with national growth whether in wealth or population. Not only do the limitations of nature become more and more stringent in reducing the rate of increase, but that increase does of itself create moral and social, not to speak of distinctly political, tendencies, which traverse its own course, and, if not strong enough to defeat further growth or accumulation, do at least make every successive gain more slow and painful. It was sufficiently hazardous for Mr. Watson, writing after the Third Census, to predict an uninterrupted and unretarded advance for as many as five decades; but it was far more hazardous for Mr. DeBow, writing after the Seventh Census, to predict the continuance of the previous ratio of increase for the remaining five decades of the century; more hazardous, because the long continuance of that ratio was an argument for and not against a change.

The change came: came later even than it had been reasonable to expect. It began when the people of the United States began to leave agricultural for manufacturing pursuits; to turn from the country to the town; to live in up-and-down houses, and to follow closely the fashion of foreign life. The first effects of it were covered from the common sight by a flood of immigration unprecedented in history. Even its more recent and more extensive effects have been so obscured by the smoke of war, that the public mind still fails to apprehend the full significance of the decline in the rate of the national increase, and vaguely attributes the entire loss of population to the Rebellion. But a close observer must discern causes now working within the nation, which render it a little less than absurd longer to apply the former rates of growth to the computation of our population at 1880, 1890, or 1900. What rate will be substituted therefor, it would be futile to enquire. As the line of agricultural occupation draws closer to the great barren plains; as the older Western States change more and more to manufactures and to commerce; as

the manufacturing and commercial communities of the East become compacted ; as the whole population tends increasingly to fashion and social observance ; as diet, dress, and equipage become more and more artificial ; and as the detestable American vice of "boarding," making children truly "encumbrances," and uprooting the ancient and honorable institution of the family, extends from city to city and from village to village,—it is not to be doubted that we shall note a steady decline in the rate of the national increase from decade to decade. But it would be merely an attempt at imposture to assume that numerical data exist for determining, within eight or ten or twelve millions, the population of the country thirty years from the date of the last census. As long as one simple force was operating expansively upon a homogeneous people, within a territory affording fertile lands beyond the ability of the existing population to occupy, so long it was no miracle to predict with accuracy the results of the census. But in the eddy and swirl of social and industrial currents through which the nation is now passing, it is wholly impossible to estimate the rate of its progress even though we may feel sure that the good ship will steadily hold her course, and in time round the point which hopes too fond had—on the strength of a fortunate run made upon a smooth sea, with favoring winds and following floods—predicted would be reached by the blessed year 1900. This much however, may with diffidence be said, that the best of probable good fortune will hardly carry the population of the country beyond seventy-five millions by the close of the century.

—Francis A. Walker in *Atlantic Monthly* for October.

LANGUAGE AND RACE.—There is nothing so closely connected with the spirit as speech. Many philosophers have confounded the idea with expression of it, and have proclaimed the impossibility of the most secret and intimate thoughts without the aid of language. Christian theology has called the Second Person of its Trinity the God-Man, the Word ; and the revelation of ideas, which is for our souls what heat is for our life, has been the eternal revelation of speech. Human speech is, therefore, the most intellectual and the most spiritual of all our natural functions, and speech is diversified not according to nationalities, but according to race. What strict kinship there is between the Portuguese, the Italian, the Spanish, and the French ! It might be said that all of the Latins are born knowing these languages. With a little reading, a little practice, we attain to their complete possession. And why ? Because the four dialects are immediately derived from that mother-tongue which has given its name to our race—the Latin language. In the most remote antiquity are unerring proofs of this. While the speech of the pagan people—the progressive, artistic Indo-European peoples—has rounded periods, complicated syntax, a verb rich in tenses and moods, which enable it to

subordinate secondary thoughts to the capital thought, subsidiary phrases to the predominant and the sovereign phrase, the religious Semitic peoples, born to diffuse monotheism, reared in the solitude of the desert, the authors of that music which appears like the sob of the soul, and of an architecture which reserves all its marvels for the interior—the speech of these peoples is trilateral in its roots, simple in its syntax, suiting the sense to the sound in its words, cut up into versicles united by the primitive medium of the conjunction—all differences of the highest importance from that rich variety of Greek and Latin, the two languages formed to contain and to express the variety of human thought.

The Indo-European languages have these characteristics because they are the languages of those peoples who have passed through all political ideas and social forms ; who have produced gods in their image ; who have placed the direction of their States in the hands of legislators, tribunes, heroes ; who have written the analysis of Aristotle, the synthesis of Plato ; who have consumed innumerable philosophical ideas in the perpetual movement, the periodical renovation of their spirit—while the Semitic tongues are the languages of religious peoples, who have founded the idea of the unity of God in Jerusalem and in Mecca ; who have resolved all their forms of government into a pure theocracy ; who have been directed by the voice of prophets ; who have written the Koran and the Bible ; who opposed to the Greek chorus the melancholy hymn ; to the drama, subjective and lyric poetry ; to free thought, the perpetual commentary of their revelations ; to the gods of mythology and the God-man of the Gospel, their one Creator, secluded as in a secret tabernacle in the immensity of the heavens.

—Emilio Castelar, in *Harper's Magazine*.

THE PRINCIPLES OF THE GRANGES.—*Preamble to the Constitution.*—"Human happiness is the acme of earthly ambition. Individual happiness depends upon general prosperity. The prosperity of a nation is in proportion to the value of its productions. The soil is the source from whence we derive all that constitutes wealth ; without it we would have no agriculture, no manufacture, no commerce. Of all the material gifts of the Creator, the various productions of the vegetable world are of the first importance. The art of agriculture is the parent and precursor of all arts, and its product the foundation of all wealth. The productions of the earth are subject to the influence of natural laws, invariable and indisputable ; the amount produced will consequently be in proportion to the intelligence of the producer ; and success will depend upon his knowledge of the action of these laws, and the proper application of their principles. Hence knowledge is the foundation of happiness. The ultimate object of this organization is for mutual instruction and protection, to lighten labor by diffusing knowledge of its aims and purposes, expand the mind by tracing the beautiful laws

the great Creator has established in the universe, and to enlarge our views of Creative wisdom and power. To those who read aright, history proves that, in all ages, society is fragmentary; but successful results of general welfare can be secured only by general effort. Unity of action cannot be acquired without discipline, and discipline cannot be enforced without significant organization: hence we have a ceremony of initiation which binds us in mutual fraternity as with a band of iron; but, although its influence is so powerful, its application is as gentle as that of the silken thread that binds a wreath of flowers."

Practical Suggestions from the Official Pamphlet.—"The work of the subordinate granges has two stages, or periods. First we organize the granges, and study to become familiar with the work of the lodge-room. We study to take in the essence and spirit of our beautiful and elevating ritual. We also get acquainted with each other. As a people we pay too little regard to the social and fraternal element in society. There are, perhaps, reasons why this is so, growing out of our earnest, practical life in developing a new country; but it is none the less true that our happiness and well-being would be better promoted by cultivating more fully our social natures. After the organizing period has passed, we come to the business or material phase of our work. Here we need to be governed by a large and enlightened wisdom. We are suffering from the oppression of corporations. Manufacturers combine against us; and, owing to circumstances by which we are surrounded, we perhaps do not understand, at present, just the best and most business-like method of remedying the evil. We need, then, to carefully study and mature our plans before we begin to act. We talk over among ourselves what we desire to do, and compare opinions as to the best methods of arriving at results. Having perfected our plans, we should be more than careful that we carry out in good faith and in a business-like way all agreements and contracts."

GRAMMATICAL TECHNICALITIES.—Speaking of grammar, the following conversation is said to have occurred in a railroad car recently between a young lady teacher, who also writes for the —, and an old gentleman who had a notion that he could speak the English language: *Old Gentleman*—"Are there any houses building in your village?" *Young Lady*—"No, sir. There is a new house being built for Mr. Smith, but it is the carpenters who are building." *Gentleman*—"True: I sit corrected. To be building is certainly a different thing from to be being built. And how long has Mr. Smith's house been being built?" *Lady* (looks puzzled a moment, and then answers rather abruptly)—"Nearly a year." *Gentleman*—"How much longer do you think it will be being built?" *Lady* (explosively)—"Don't know." *Gentleman*—"I should think Mr. Smith would be annoyed by its being so long being built, for the house he now occupies being old, he must leave it, and the new one being only being built, instead of being built as he expected, he can not—"

Here the gentleman perceived that the lady had disappeared.
—Harper's Magazine.

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EDITORIAL.

We are happy to put on record the complete success of the recent meeting of the State Teachers' Association. Fears had been entertained that the new by-law doing away with all free entertainment might so operate as to diminish seriously the attendance. But there has never been a more gratifying attendance. Almost all the leading schools in the State were represented, and a more cheerful collection of faces could hardly be met with in any other assembly, in spite of the drudgery that characterizes teachers' work, in spite of the hard times. The halls of the High School afforded most fitting places for the meetings, and the proceedings throughout were characterized by excellence on the part of those contributing to the exercises, and on the part of the audience. We can assure those who were not there that they cannot afford to lose either the pleasure or the profit of such meetings.

MUCH credit is due to President H. C. Davis for the rich and varied programme which he provided for the meeting of the Association. It was no small thing to secure to our teachers and to citizens of Hartford, free of expense, the timely and soul-stirring address of Henry Ward Beecher. The other appointments were judiciously made, and it was also doubtless due largely to the personal popularity of Mr. Davis that so fine an attendance was exhibited. The teachers are also indebted largely to the efficient secretary, Mr. Ralph H. Park, for much laborious work in perfecting and carrying out the business arrangements of the occasion. Certainly, these were so successfully attended to that all that the members could desire in the way of facilities and reasonable accommodation was provided for them. For a most convenient and hospitable reception in the halls of the High School building, and for other attentions, we must thank Mr. Samuel M. Capron, the Principal of the High School.

Special and grateful reference must also be made to the invaluable services of Mr. F. F. Barrows,

Principal of the Brown School, Hartford. The local arrangements were in large measure entrusted to the latter gentleman, and for the perfection and quiet success with which they were carried out, especially in the neat handling and seating of the overflowing crowd at Allyn Hall, both our admiration and our thanks are due to Mr. Barrows.

WE cannot do less than to express our gratification to our fellow-teachers of the Association for the interest which they manifested at the late meeting in the *SCHOOL JOURNAL*; for the unqualified endorsement which they gave to the character and conduct of this enterprise, and also our warmest thanks for the cordial feeling outspoken and heartily shown the editors personally. Nothing could have occurred to stimulate us more to do our best in discharging our editorial obligations faithfully than these evidences that our respected associates, in whose name we work, are with us in sympathy and support. This feeling was not limited to words, but showed itself in the action taken, and in the generous inflow of new subscriptions. A large committee composed of leading members of the Association, assisted by other prominent members who were invited to contribute their advice, devoted an hour to the most careful consideration of questions involved in the future of this publication. Through their chairman, Prof. F. T. Russell, a report of confidence in the management was made, and testimony was freely offered by various teachers before the whole assemblage of the value to them of these pages. The coming forward of more than forty new subscribers on the spot, furnished all the evidence that could be further desired, to the acceptability of this enterprise.—One gray-headed gentleman handing over his subscription remarked that he was pretty old, but that he was not too old to learn something, and that he had therefore decided to take the *SCHOOL JOURNAL*. Teachers who are not too old nor too smart to be open to new suggestions, are the only teachers of the right stamp.

WITH all our biggest editorial, and our warmest personal hearts, we welcome to our corps of editors our newly-elected associate, Mr. Mark Pitman, of New Haven. We are glad to have so strong and clear a thinker with us. He is no stranger to our readers, and they will join with us in approving of the selection of the Association. The want which we have often felt of an associate editor resident in New Haven, our place of publication, is thus excellently supplied.

THE NEW HAMPSHIRE STATE TEACHERS' ASSOCIATION is a live body of earnest workers. This is our inference from what we saw at the recent meeting of the society, held in Claremont, on the 30th and 31st of October. The programme of exercises, which was one of varied and practical interest, was most successfully carried out. The president of the Association, Prof. E. T. Quimby of Dartmouth College, seemed possessed on this occasion of every instinct that belongs to an efficient and genial presiding officer. His opening address was a very happy effort. He spoke on the necessity of accuracy in the work of the scholar, adverting by request, and in the way of illustrating his subject, to the manner in which the Coast Survey is conducted, and to his own work of triangulating the State of New Hampshire. We have some hope of being able soon to present this interesting address to our readers. Following the "Address by the President," on the same evening, was presented a paper by the Hon. J. W. Simonds, State Superintendent of Schools, on "Educational Progress in the State." This report was a well-arranged and finely written document, and though quietly read, was clearly understood. Mr. Simonds seems to be a very modest and unassuming gentleman, though evidently an able and accomplished State official. The paper on "Disciplinary Education," by Prof. R. E. Avery, of the New Hampshire Conference Seminary, Tilton, was full of sound thoughts, effectively expressed. It contained some sharp thrusts at Commercial Colleges, so called. Hiram Orcutt, A.M., Principal of Tilden Female Seminary, West Lebanon, read a thoroughly appreciative biographical sketch of the late Silas M. Pearl, recently Principal of the New Hampshire Normal School, at Plymouth, in which he paid a glowing tribute to the memory of this faithful and successful instructor. "Method of Teaching Language" was the theme of a scholarly address by Alfred S. Hall, A.B., Principal of the Manchester-street School, Manchester. Mr. Hall's remarks were eloquent, and were received with much applause. We have the promise of them for the *JOURNAL*. If we rightly understood the next speaker, J. E. Vose, A.M., Principal of Francetown Academy, he had had the topic, "Is Genesis First a Myth?" assigned to him for an hour's discussion before the members of the Association, and a most interesting hour he made of it. "Health of School Children" was discussed, the discussion being opened by Mr. D. A. Clifford, Principal of the Franklin-street School, Manchester. Mr. Page, a young lawyer of Concord, followed with a gushing address,

which was much enjoyed. Both of these gentle men were very much in earnest, and talked in a stirring way respecting ventilation, gymnastics, modes of punishment, etc. Perhaps Mrs. A. G. Woolson's paper on "Departmental Instruction" was the ablest presented, as it was certainly the one most attractively read. In this essay Mrs. W. showed herself a lady of great refinement, much culture, and acute perception. She did *not* refuse to let us have her essay for publication. The "Report of Committee on Educational Monthly," by T. W. Hussey, Esq., Principal of the Nashua High School, showed that the gentleman had performed the duty assigned to him by the Association one year ago, with remarkable fidelity. In its financial features the report seemed to us, with our experience in managing this journal, somewhat rose-colored. Mr. Hussey had almost every item of expense and receipt down in figures, and had made as exact calculations as one would think it possible to make in such a matter, before-hand. Upon this report a pointed discussion arose, some favoring the immediate establishment of a State journal, others arguing against such a course.

At the closing session of this most successful meeting, held on Friday evening, October 31st, the Hon. J. G. Edgerly, Superintendent of Schools in Manchester, gave a sensible and telling address on "School Discipline." Mr. Edgerly is manifestly a diamond among public-school workers, albeit he is yet somewhat in the rough. Though among the youngest of our large city Superintendents, he has already won a wide reputation for successful work.

ONE of the most interesting and valuable of the exercises at the last meeting of the National Association at Elmira, was the presentation by Dr. Edwin Leigh of his method of phonotypic lessons in reading for primary scholars. It was very favorably received by the Association generally, as it deserved to be. We have been recently privileged to hear at our State Normal School a course of lectures from Dr. Leigh, in which he explained his method, the basis of phonetic science on which it rests, and the details of its application in actual practice. In thus becoming more thoroughly acquainted with this ingenious system, we have become also so well convinced of its excellence and practicability that we believe it our simple duty to urge our teachers to try it, not doubting that a fair trial will secure its adoption. Its two chief merits, as we look at it, are its being based on a careful and scientific study of vocal sounds, and being thus

in practical harmony with the accepted systems of phonetic writing, and the essential and ingenious similarity of its letter forms to our common forms, so that no violence is done to our accepted style of printing, nor is there any task to be undergone in transition from this system to our common readings. Of all the attempts to introduce phonotypic instruction into our common schools, this is the only one against which we would not set our face at once as impracticable; but this plan appears to solve the difficulties inherent to the situation in a very remarkable manner, and it is eminently sensible and practical. Dr. Leigh is doing a good work in presenting this matter to our teachers' institutes. Secretary Northrop has given it his full endorsement. None of the other State Secretaries of Education have yet done anything to encourage its adoption. We regret this, as it would be more pleasing to find them taking the lead in advancing a good thing, than compelled, as they are quite likely to be in this case, to follow tardily in its adoption. We will have the pleasure of presenting to our readers in this and subsequent numbers some valuable contributions from Dr. Leigh's pen on this and kindred subjects.

PE SONAL.—Prof. R. G. Hibbard returned from his European trip late in September, and gave his first public reading for this season in the Trinity course, at Charlestown, Mass., on Tuesday evening, October 21st, before a very large and enthusiastic audience. Notwithstanding the financial troubles, Professor Hibbard has already made a large number of engagements in various parts of New England, and is everywhere received with the most flattering expressions of appreciation.

Hon. J. W. Simonds, Superintendent of Public Instruction, New Hampshire, has courteously sent us a printed programme of the exercises promised for the State Teachers' Institute for Merrimack County, to be held in the town of Warner, during the week beginning Nov. 10. Judging from this "Order," these exercises will be very interesting, as well as highly profitable. New Hampshire appropriates \$3000 per year for this Institute work, and requires that the State Superintendent shall hold one, each year, in each of the ten counties of the Commonwealth.

TRUE religion shows its influence in every part of our conduct; it is like the sap of a living tree, which penetrates the most distant bough.

ANNALS OF EDUCATION.

TWENTY-SEVENTH MEETING OF THE
STATE TEACHERS' ASSOCIATION.

The annual meeting of this year at Hartford, was ushered in according to programme by an address by Rev. Henry Ward Beecher, at Allyn Hall, on Compulsory Education, on the evening of Thursday, Oct. 16. The hall was, of course, filled to overflowing, teachers occupying the parquette, and others the gallery and dress circle. The attendance of teachers was very large. The seating of this immense audience was effected in a very satisfactory manner by attentive ushers, under the quiet but vigilant superintendence of Principal F. F. Barrows, of the Brown School, Hartford.

At half-past 7, the meeting was called to order by the President, Mr. Henry C. Davis of New Haven. Prayer was offered by Rev. Mr. Richardson of Hartford. The reading of the Secretary's report of the last meeting was postponed, and Rev. Mr. Beecher was at once introduced.

This address by Mr. Beecher was quite new, differing essentially from his written lecture on the same subject. It was rich in good things, and produced an impressive effect on the audience.

Hon. B. G. Northrop followed with a motion for a vote of thanks to the speaker for his appearance before the meeting without any charge, which motion was carried unanimously.

The exercises on Friday were held at the High School building. At nine o'clock the general session of the Association was convened at the large hall of the School. About four hundred teachers were present during the day. The devotional exercises were conducted by Rev. Charles R. Fisher, of Hartford. The following regular committees were then appointed by the President:

Committee on Nominations—H. E. Sawyer, Middletown; M. Welch, Willimantic; G. R. Burton, New Haven; N. Fuller, New London; F. A. Brackett, Bridgeport; A. B. Mather, Meriden; F. F. Barrows, Hartford; L. W. Parish, Branford; N. L. Bishop, Norwich; H. M. Adams, Portland.

Committee on School Journal—Prof. F. T. Russell, Hartford; L. L. Camp, New Haven; J. D. Ferguson, Stamford; I. N. Carleton, New Britain; S. B. Frost, Danielsonville; M. S. Crosby, Waterbury; C. C. Chatfield, New Haven; S. M. Capron, Hartford; Mark Pitman, New Haven; N. H. Whittemore, Norwich; W. B. Dwight, New Britain.

Committee on Teachers and Teachers' places—T. W. T. Curtis, New Haven; A. Morse, Hartford; A. P. Beales, Stamford.

Committee on Enrollment—W. B. Dwight, New Britain; J. C. Stockwell, Hartford; P. B. Peck, Windham; W. H. Hyde, New Haven; John H. Peck, New Britain.

Committee on Resolutions—Park Hill, Bridgeport; E. C. Winslow, Clinton; C. Harris, Hartford; J. H. Fuller, Birmingham; P. H. Pearl, Hartford.

The President spoke of the necessity of revising the constitution adopted by the Association twenty-seven years ago, and expressed a hope that before the adjournment, a Committee of Revision might be appointed.

The Association then resolved itself into two sections, meeting in separate rooms for the remainder of the morning. This is a new experiment for this body, though quite commonly adopted in similar assemblies. It permits the accomplishment of much more work, and such arrangement of special topics in special departments as would allow teachers to select what would meet more particularly their own wants. The plan seemed to give satisfaction to the teachers present.

Section One—Samuel M. Capron, president—met in the Philosophical Hall of the High School; Section Two—Ariel Parish, president—remained in the large hall.

IN SECTION ONE.

Mr. S. B. Frost, Principal of the Danielsonville High School, opened with an able paper on "The Position of the High School in our Educational System." On this occasion the speaker presented more at length, views which he has already presented substantially to our readers in a former number of the *SCHOOL JOURNAL*. He insists on the expediency of making the studies of the High School conditionally elective, in order to secure the best results. Having already published a statement of these views, we need not re-produce them here.

The close attention which the audience had paid to Mr. Frost's article, was followed by a discussion which opened with some spirit on the part of those dissenting from some of the statements, but want of time prevented any extended remarks.

A correction was made by Mr. S. M. Capron, of the assumption that the average age of the high school graduate was 21; he would put it at not over 18. He did not think the course in most high schools so compulsory as the paper implied; he advocated the study of the ancient languages, which Mr. Frost had deprecated, and opposed decidedly

the elective system. It is better that the studies of the course should be wisely selected by those more competent than the pupils themselves. In the mathematics usually studied, there is comparatively little that is used in practical life; why then are they pursued? Simply to secure quickness and correctness in mathematical reasoning, and facility and correctness in the use of language.

Mr. T. W. T. Curtis expressed much interest in the paper, and agreed with much that was said in it; yet he could not agree with some of the positions taken, as for instance, the omission of Latin and Greek. He did not approve of the elective system; if the choice of studies is left to themselves, pupils will acquire a one-sided culture, rather than a symmetrical and comprehensive one. Those who have charge of the school are best qualified to decide what should be studied.

The next paper was read by Rev. H. E. Sawyer, Superintendent of Schools, Middletown, on "Tests of Class-room Work." Making all due allowances for the great obstacles in his path, the amount and the quality of the work done in the school or class-room depends upon the tact, the ability and enthusiasm of the teacher. Several tests were mentioned by which we can determine the nature of class-room work. The first test consists of observations of method and manner of conducting the recitations. Visits made for this purpose should be frequent, extended, unexpected, and at various hours. Another test is kindred to the first, but not identical with it—it is inspection. This differs essentially from simple observation. Visits of observation do not disturb the routine of the school. The observer strives to be unnoticed. But the inspection is an active work. It questions teacher and pupils. The third test is that of formal examinations, which may be oral, written, or both combined. These three tests were discussed at length in a very practical, suggestive, and useful way.

Mr. F. F. Barrows, Principal of the Brown School, Hartford, opened a discussion on Mental Arithmetic. He spoke first of the definitions of mental and written arithmetic, and then of the proper place of mental arithmetic. The old definitions were that the written meant ciphering by rule; the mental, operations not written but held in the mind for comparison and reflection. The last definition would hold good to-day, but the first would not; for to-day the operations of mental and written arithmetic are the same; the difference is simply that one is written out, the other is held in the mind. In

regard to its proper place, he would first have a primary mental arithmetic course for young children when they are being taught to combine any two figures. Such a course need not imply the use of any book. As soon as they could write and combine two figures he would require them to put their processes, the multiplication, division, etc., on paper or on the board, in order that they might become experts in ciphering with the four ground rules, and lose nothing in mental arithmetic. In no other part of the course would the speaker assign a distinct place for mental drill, but would have it closely accompany every written exercise for two reasons: 1. Because observation shows that pupils trained in the four ground rules to the exclusion of this mental drill can work problems classified under regular rules, but fail in miscellaneous problems. 2. Because those trained in mental drill, exclusive of the written exercises, fail in the four ground rules. This has been repeatedly proved by the speaker by giving to classes quite expert in mental drill, problems differing from their ordinary exercises simply in involving numbers too large to carry in the mind; the result was always utter failure. Mr. Barrows insisted that there should be no such thing as written arithmetic worked by *rules*, but that the processes of the mental should simply be carried out in the written.

Mr. Capron would give somewhat different definitions. He would consider mental arithmetic as consisting of processes carried on mentally and written, as the same with the assistance of writing, put on record by the slate, black-board, etc. Just how soon these reasoning processes should commence is an important question. In Germany no teacher is allowed to speak of reasoning to a pupil under 12 or 13 years of age.

Mr. Barrows considered Mr. Capron's definitions identical with his own.

Prof. I. N. Carleton expressed pleasure at the luminous manner of statement of the subject by Mr. Barrows. He did not see any disagreement in the definition given. The practice of the German schools, as stated by Mr. Capron, is not quite philosophical. We ought not to refuse explanation to children if they press for it. Our children are inclined to reason, yet they are not most hungry in reasoning, but in the perceptive powers. They must be trained to see the connection in actual life of these two parts. He mentioned the case of a cashier in Lowell, Mass., who, after twenty years experience of ciphering in old-fashioned ways of computation, found himself beaten by a young lady

assistant who used the more modern and practical method. He advised practising children at school in making change in the modern method, with the use of pebbles and other objects. If a child six years old asks a question involving reasoning, don't put it off, and leave this general philosophizing for some grand future day. Do not give it a stone for bread, but bring it up into the full and mature exercise of its higher powers on a gentle sliding scale.

To an inquiry from Prof. Carleton whether he would use a slate with Colburn's arithmetic, Mr. Barrows replied, not with the problems in any section of the book, but with other problems illustrating those sections.

Mr. Avery, So. Meriden, agreed with Mr. Barrows in connecting the two kinds of arithmetical study, but considered the processes of working the larger numbers involved in written arithmetic, essentially different from those of the mental. Hence special rules were required in the former. Thus, a child who could mentally decide that 7 is contained in 14 twice, could not find, by writing, the number of times 612 is contained in 625,000,000 without working through a process given in a rule. One of these drills, therefore, requires rules; the others do not.

Mr. Barrows—They learn the four ground rules in mental arithmetic. I would inquire whether, in fractions for instance, the processes are different?

Mr. Avery—Yes; because larger numbers in fractions require special processes of multiplication, etc.

Mr. Barrows—I have tried the gentleman's method, but for the last fifteen years have not used it, but the method suggested, with far better results. There has been no difficulty in working with large figures. It makes no difference whether the number to be used is $3\frac{1}{2}$ or 3.333 $\frac{1}{3}$. Now and then rules may be needed in special cases, as in greatest common divisor.

Mr. Avery—We do not need rules in working small, but large numbers, and should say to the children that these rules are really the same processes as are used with smaller numbers.

Mr. J. H. Peck, Principal of the High School in New Britain, followed with a valuable paper on "Examinations with reference to Promotions."

As we hope to have the pleasure of publishing this paper entire in some subsequent number, we will not undertake to give any resume of it here, except to say that it discussed fully the various methods of examination, and passed decided opinions upon their merits.

Mr. Capron asked the speaker at what age he would test pupils by written examinations.

Mr. Peck answered, that his remarks had applied to grammar schools, previous to which he certainly should not have written examinations, and probably not before the High School is reached.

Mr. Avery asked which is the most practical, a public or a written examination.

Mr. Peck answered both, and explained that each has its uses.

Mr. Capron asked for the best way of ascertaining the maturity of pupils for entering upon higher studies.

Mr. Peck thought the success in ascertaining this depended on the nature of the questions asked.

Mr. Curtis, of New Haven, considered it very important to determine the fitness as far as maturity is concerned, and the amount of working power. Written examinations seem to attain somewhat of this result. That way which is most free from the embarrassment of delivery is the best. Technical questions must be avoided. He does not believe in public examinations.

Mr. Tracy said that he would carry the study of mental arithmetic much farther than some. He considered it to have the effect of light gymnastics: it promotes quickness.

Mr. Capron expressed the hope that no teacher came expecting that all his difficulties could be answered in this brief morning session, yet felt confident that all must have been benefited by the papers and discussions. This section then adjourned.

THE SECOND SECTION

was opened by a lecture of high importance, delivered by Dr. Edwin Leigh, of New York, on "Phonetic Method with Pronouncing Orthography in its relations to other Methods."

Dr. Leigh substituted for the reading of a paper which he had prepared, the actual exhibition of his method of teaching primary classes to read phonetically, making use of a large class of young children which had been furnished for the purpose. He of course could illustrate but the beginning of such a course which, however, gave a very fair idea of the whole. His system consists essentially in furnishing the classes with cards and primary readers, printed with type so constructed as to indicate with certainty the correct pronunciation. Thus, instead of putting before the little student of the alphabet, as is usually done, the simple letter "a" to represent the many confusing sounds represented by that type, he furnishes in the readers a

distinct form of type for each prominent variety of sound covered conventionally by that letter. As each form represents but one sound, the pupil is at no loss, wherever that form is given, to give it correct voicing at once. And in teaching primary spelling every word is first spelled phonetically and not conventionally. When, however, the correct phonetic spelling is acquired the conventional spelling is at once taught, all silent letters being properly located and distinguished. All confusion is thus avoided, the task is essentially lightened, and the pupils acquire such training of the ear for discrimination of vocal sounds as is in no other way acquired, and it never leaves them. An all-important feature of the system is that these special forms of the letters differ so little from the regular forms that the transition is subsequently made without shock or difficulty of any kind. This system is not ordinarily intended for any but those not yet beyond the primary reader. It has been tried with excellent results in New York, Boston, and St. Louis. A more rapid progress is claimed for children under this process than under the present one, less labor for teachers and an acquisition of far better habits of observing and discriminating vocal sounds. Dr. Leigh's exercise was received with marked and deserved attention.

Miss Curtis, of the Charter Oak School, Hartford, then illustrated the method of teaching primary children the elements of music, using Jepson's method. A class was introduced and handled with much success. Miss Curtis has failed, during two years' experience, to find any children unable to learn singing successfully.

Mr. H. C. Davis brought forward strong testimony as to the universal capability of children for this study.

Mr. Parish, the presiding officer of the section, and others, then answered various questions propounded concerning primary, intermediate, and grammar-school work, viz: the utility of recesses; the way in which to make the multiplication table interesting to children; how to maintain a good-natured spirit among pupils; the best method of fixing the pupils' attention; the character of the intercourse between teacher and pupil out of school; whether a recitation should be interrupted for the sake of discipline, etc.

The section was then adjourned.

THE JOINT SESSION.

At the re-assembling of the whole Association, at 2 P. M., the following officers were elected for the ensuing year:

President—H. C. Davis, New Haven.

Vice-Presidents—I. N. Carleton, Hartford county; Miss C. B. Williams, New Haven county; S. B. Frost, Windham county; Miss M. L. Houston, New London county; R. P. Barrows, Tolland county; Miss M. J. Chapman, Middlesex county; J. K. Peck, Litchfield county; Mr. Fairbanks, Fairfield county.

Secretary—Ralph H. Peck, New Haven.

Treasurer—J. C. Stockwell, Hartford.

A committee of three, consisting of the following gentlemen, H. C. Davis, H. E. Sawyer, and A. Parish, was appointed to report during the ensuing year on the revision of the constitution.

The meeting was then addressed by Hon. B. G. Northrop, of New Haven, on the condition and prospects of the CONNECTICUT SCHOOL JOURNAL, congratulating the Association on its continued success. Mr. Chan Laisun, Chinese Commissioner of Education, was introduced by the President, and delivered an address on the Hieroglyphic Language of China. A very instructive and entertaining account was given of the transitions from the earlier and simpler hieroglyphics to the later and more complicated word-structures. An abstract of Mr. Laisun's valuable contribution has been promised by him for our columns, but the richness of the treat cannot be secured without the illustrations copiously given on the black-board.

At this point, His Excellency, Gov. Ingersoll, honored the Association with his presence, as he could not be present, as announced, in the evening. He addressed the Assembly as follows:

This is the first time that I have met any considerable body of teachers together. The routine of my life has not brought me hitherto into contact with the inner working of our educational system. Of course, in my present capacity as Governor, I am brought into close contact with it, and I wish to express my satisfaction at the rapidity of the growth, and potency of the influence of this department of our State government. Only two hundred years ago Connecticut was conspicuous for its school fund of \$2,000,000, incorporated as a remarkable provision in the State Constitution. Yet we now raise annually for school purposes a sum nearly equal to the principal of that school fund; and that fund could be entirely wiped out to-day, and not make a ripple on the financial condition of education. The people of Connecticut send into their schools an army of 2,500 teachers. The same force sent out as military officers, or as ministers of religion, would convulse the State with excitement, and be in every one's thoughts. Why does not this educational force produce these effects? Why does it not divide parties? Because we know

that it is as necessary as the light of the sun. —There is no government, whatever its style, whether covered with a crown or with a straw hat, but depends upon public opinion for its existence. Even the Imperial crown of Germany would stand on feet of clay if not backed by public opinion. How important, then, is the public opinion of the United States. The highest wisdom of the country is to educate this opinion. To educate the people, not to tell them what to think. I assure you of my warmest wishes for your success, and of my willingness to do all that I can do for this great cause.

Mr. Joseph Gile, Principal of the Eaton School, New Haven, followed with an exceedingly able address on the Moral Side of Public School Life. It is too finished a production to give piecemeal, and we will at an early day give it entire to our readers.

Prof. F. T. Russell, Chairman of the Committee on the CONNECTICUT SCHOOL JOURNAL, now read the report of Committee. It should be stated that a very important session had been held by the JOURNAL Committee. Some prominent teachers not upon it on invitation sat with it, in the capacity of advisers; among these were Mr. A. J. Shores, Principal of the Suffield Literary Institute, Mr. F. F. Barrows, Rev. Lucian Burleigh, Mr. A. Morse, Mr. Mark Pitman, and others. Very cordial sentiments were expressed toward the present management, and an earnest determination to make new endeavors to add valuable matter to its columns. Mr. Mark Pitman was added to the board of acting editors. A committee, consisting of Mr. S. M. Capron, C. C. Chatfield, I. N. Carleton, Hon. B. G. Northrop, J. D. Ferguson, was appointed to confer with the State Associations of other New England States in regard to establishing a New England School Journal. Professor Russell's report narrated the success of the JOURNAL, and recommended its earnest support. Various illustrations of its practical value to teachers were cited. The committee recommended for the next year as editors, I. N. Carleton, New Britain; W. B. Dwight, New Britain; and Mark Pitman, New Haven. The report was adopted. Rev. Lucian Burleigh and H. M. Sawyer gave warm testimony to the practical value of articles in the SCHOOL JOURNAL. The latter said he had marked three articles in the October number to show to his teachers. The appreciation of the JOURNAL was shown in a very pleasant way by new subscriptions received on the spot from over forty new subscribers.

Mr. Percy S. Bryant, Principal of the High School, Thompsonville, gave an address on "Suspension of Particular studies by Special Teachers"; this was a very practical paper, and written with much

ability. We refrain from further notice here, as we propose soon to give it entire. It was well received by the audience, and formed a very pleasant closing to the afternoon session.

The hall was well filled at the evening session.

The report of the Committee on Resolutions, presented by its chairman, Mr. Park Hill, of Bridgeport, was as follows:

Resolved, That the twenty-seventh annual meeting of the State Teachers' Association gives increased assurance of its usefulness in promoting the cause of education, and that it is our duty as members of said association to renew yearly our endeavors to further enhance its value and make it a still greater power for good by extending its influence, and by bringing as many as possible to cooperate in the work designed by the association.

Resolved, That the cause of education shall receive our hearty support, and that wherein our system of education is imperfect or inadequate it shall be considered our duty to remedy such defects by the application of all lawful means at our command.

Resolved, That the State Board of Education should be authorized by law to provide for the examination of persons desirous of teaching in the common schools of the State, and to grant certificates to such persons as may be examined and duly qualified; and

Resolved, That the certificates so given should be of two or more grades, and should show the proficiency of the holder in each of the branches included in the examination, and that such certificates should, for the period therein named, be received by the board of education or board of school visitors of any city or town, in place of the certificate of examination now by law required.

Resolved, That a committee be appointed to present these resolutions to the State Board of Education, and with their concurrence to endeavor to procure the necessary legislation to carry the same or similar resolutions into effect.

Resolved, That the thanks of the Association be and hereby are extended to its president and other officers for their very able services: to the various railroad companies for their liberality in granting free return tickets to the members of the Association; to the proprietor of Allyn Hall for his generosity in the use of the hall; to the committee of the High School for the use of the public building; to the various hotels that reduced their regular rates; to the Hartford, Providence and Fishkill railroad for their generosity in tendering a free excursion to South Manchester; to the Middletown Scientific Association for their invitation to accompany them on a scientific expedition; to the local committee for valuable assistance rendered; to all who have in any way contributed to the success and pleasure of the association; and especially to the Rev. Henry Ward Beecher for his lecture on "Compulsory Education," given gratuitously to the Association.

The report of the committee was accepted, and the resolutions adopted, except the three relating to the system of examining teachers and providing them with certificates. These resolutions were made the topic of debate for the evening, which lasted about two hours.

Mr. J. D. Ferguson, of Stamford, opened the discussion by comparing the leading points of the resolutions bearing on certificates with some he had previously prepared, on the same subject, and called attention to the fact that the association was already by previous action committed on the subject. He explained that these resolutions showed

our recognition of the necessity of legislation on the subject ; and that there would be a great advantage to teachers in the certificating system, in saving them the annoyance of petty examinations, and in separating them from mere pretenders. The proviso of two or more grades might be more open to objection ; but the intention should be not to establish these grades on the basis of percentage of excellence in examination ; as, for instance, 100 per cent. grades to 75 per cent. grades ; but before the examination, which should be suited to the grade, the teacher should state for which grade he wishes to be examined. By bringing full and correct certificates of the nature of his proficiency, and what class of schools he is fitted to teach, the teachers enable the local boards to put the square pegs in the square holes, or the right teacher in the right place. Again, the reception of these certificates is entirely voluntary on the part of the local boards. Nothing is forced upon them ; they are simply to be permitted by law to accept the certificate in place of a new examination. Mr. Ferguson hoped earnestly for the passage of the resolutions.

Rev. C. R. Fisher, acting School Visitor of Hartford, spoke of the propriety of teachers being willing cheerfully to pass examinations under the law, while it stands as at present ; of the importance of the examiners avoiding all unfair, perplexing questions ; of the inadequacy of any certificate of examination to give the real ability of the candidate, and of the importance of enthusiasm and devotion to the work on the part of every teacher. He expressed decidedly the opinion that good teachers of the lower grades are entitled to pay equal to that given in higher grades.

Rev. J. G. Baird, Assistant Secretary of the State Board, was called out. He stated that the proposed system of certificating, though new here, was in operation in New York and Ohio. Should the Association decide on the expediency of its adoption, then would come the tug of war, and no holiday task to persuade the legislature to adopt it. He brought forward some striking illustrations of the inefficiency of the present method of examination. He showed that by the proposed provisions the State Board itself would not do the examining ; they could not leave their responsible public duties to do that, but it would appoint a proper board of examiners ; they, performing their duties faithfully and by a uniform and thorough system, would relieve the teachers of much annoyance and give them certificates lasting for all time ; while they would also relieve the local boards of much

irksome work, as of examining teachers whom they felt almost obligated by acquaintanceship to admit, worthy or not. He expressed a fear that his views were too far ahead of public opinion in the matter, and advised heeding the suggestion of Mr. Ferguson, that too much be not undertaken, lest nothing should be accomplished.

Hon. Giles Potter, of Essex, suggested that if the old fashioned county institutes, lasting one week, could be revived, where the acting visitors and the teachers could come together, it would be a good opportunity for the examination of candidates to be conducted. It could be arranged so as not to interfere with the other exercises. Let teachers constitute a part of this examining board. The State Board can select for its examining committee out of these county candidates, taking the teacher after he has had experience—not as the work has been thrust upon him by the county board. In Prussia the teacher must go through a university education even to act as assistant in the lower schools or gymnasia, and must always be examined ; and have experience of one year before being promoted. Let the State Board give certificates of examination, giving weight to Normal School certificates, and add a trial of one year.

Hon. Henry Barnard briefly sketched the progress of education in the State till it has reached the position of a science and an art. He approved of the German system of requiring a trial-year before accepting teachers, and believed that our State Board should grant certificates only to those who have had experience. He alluded to his much cherished recollections of scenes in past days—forty years ago—when such men as Roger Minot Sherman, Daniel Webster, Rev. Thomas Gallaudet taught in our common schools, and thought that those days have gone by. The difficulty in establishing a thorough professional system is that very few teachers become professional ; young ladies have a way of seeking a higher sphere, and young men are attracted into mercantile situations.

Mr. Potter said that the question of certificating teachers is not a new but an old one. It has already been before the Legislative Committee on its own merits, and rejected, in the form presented, not because it was going on too fast, but as creating prejudices against certain classes, and prejudices against the Normal School. He advised abolishing the school districts as an essential step in the right direction, and deprecated any ill-feeling against the legislation if they should not see fit to pass the law as deserved.

Hon. Porter B. Peck said: "I oppose these resolutions as a teacher. The local boards are democracies, and the moment you take from them these sacred rights of examining their own teachers, you take from them their efficiency. I have been for forty years a member of school boards, and do not find it a burden to examine. He believed that, as a rule, the country schools were conducted as creditably as those in the cities of Hartford and New Haven. He was opposed, he said, to this constant tinkering of the school laws. It reminded him of the epitaph on the tombstone, "I was well, and wanted to be better; I took medicine, and here I am." [Laughter.]

Some further discussion followed in regard to the uselessness of carrying the matter to the Legislature, unless a strong vote in favor should be secured. The question was then put, and secured a fair, though not very strong majority.

The committee provided for by the resolutions was then adopted, as follows: Giles Potter, of Essex; Mr. Ferguson, of Stamford; S. M. Capron, principal of the Hartford High School.

The Rev. Dr. Jackson, President of Trinity College, was then introduced, and briefly addressed the Association. He said he regarded the profession of teaching as a noble one; and he was glad that the field was one open to women. He congratulated the teachers upon the progress of the work in this, his adopted State.

After the reading of "The Bells," by Prof. F. T. Russell, the exercises were closed by the singing of the doxology.

The Hartford, Providence, and Fishkill Railroad Company tendered the Association a free excursion to South Manchester, to visit the Cheney silk factories, which invitation was accepted by vote of the Association.

An invitation was also tendered for a geological trip under the superintendence of Prof. Rice, to Tariffville, which was accepted with thanks.

A more cheerful, useful, and well-attended meeting of the Association has probably never taken place. We may look for good results.

PERIODICALS.

Scribner's Monthly holds its own with remarkable success. We have not yet seen a dull number of it, and we have given up expecting to see one. The November number is truly rich in good read-

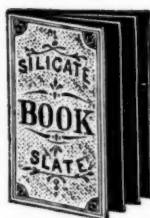
ing. It opens with number one of "The Great South: Old and New Louisiana," by Edward King. This article is profusely and spiritedly illustrated; it is a genuine potpourri of instructive and entertaining facts about this portion of the sunny South. The Story of a Telescope is a sprightly account of the construction of the great 26-inch refractor for the U. S. Observatory, by Alvan Clark & Sons. It is well worth reading. A fine portrait of Mr. Alvan Clark is given. Other valuable articles are, a sketch of the life and gifts of our prized poet, Edmund Clarence Stedman; Elizabeth Barrett Browning, by E. C. Stedman; Only Half a Woman, by Edward King, and two chapters of the interesting serial, Katherine Earle, by Aderline Trafton.

St. Nicholas: Scribner's Illustrated Magazine for Girls and Boys, conducted by Mary Mapes Dodge. We have received No. I of this elegant child's magazine, and have examined it with much satisfaction. Heretofore we have had to rely on England for a child's periodical of this style of imprint and broad, fine illustrations. We rejoice that our country can now take care of itself in this respect. Those who have delighted their little ones with the "Chatterbox" will be strongly reminded of that English production, in the stirring pages of *St. Nicholas*. Our own impressions of this magazine are of the most genial kind, by reason of its very choice engravings, and its entertaining stories. But not content with our own impressions we have tried it on our children. They are in raptures over it,—and that tells the whole story; it is destined to be immensely popular, and what is more, exceedingly useful in the nursery.

Appleton's Journal, coming in week by week, so overwhelms us with good things, that we hardly know where to begin to talk about its excellencies. A fine serial story, well illustrated, has just been commenced (Oct. 25th) in this journal. It is "A Daughter of Bohemia," by Christian Reid. It opens well, and much entertainment is promised to the readers of this novel. The Notes on Science, Arts, and Literature are much to be prized.

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